MODIS TECHNICAL TEAM MEETING

Building 33, Room E125
May 11, 2000

Bob Murphy chaired the MODIS Technical Team Meeting. Present were Bill Barnes, Francesco Bordi, Wayne Esaias, Chris Justice, Steve Kempler, Michael King, Ed Masuoka, Harry Montgomery, Bruce Ramsay (NOAA), Skip Reber, and Eric Vermote, with Deborah Howard recording the minutes.

1.0 SCHEDULE OF EVENTS

CEOS WGCV Moderate Resolution Land Products Validation Meeting Joint Research Centre, Ispra, Italy	May 22–25, 2000
AGU 2000 Spring Meeting Washington, DC	May 30–June 3, 2000
MODIS Science Team Meeting College Park, MD	June 7–8, 2000
COSPAR 2000 Warsaw, Poland	July 16–23, 2000
COSPAR/IRS Joint Symposium Warsaw, Poland and St. Petersburg, Russia	July 21 and July 24, 2000
IGARSS 2000 Honolulu, HI	July 24–28, 2000
IRS-2000 St. Petersburg, Russia.	July 24–29, 2000
EOS/SPIE Symposium on Remote Sensing Barcelona, Spain	September 25–29, 2000
SPIE's Remote Sensing Japan 2000 Sendai, Japan	October 9–12, 2000
VENICE-2000 (Oceans from Space) Venice, Italy	October 9–13, 2000
PORSEC 2000 Goa, India	December 5–8, 2000
Aqua Launch	December 21, 2000

2.0 MINUTES OF THE MEETING

2.1 Instrument
Barnes said that Roger Drake and Jim Kane from SBRS are at GSFC for the next 2 days to work on FM-1 and PFM issues. Drake and Kane met this morning with Paul Westmeyer, Ken Anderson, Bob Murphy, George Morrow, and Pete Pecori. Westmeyer, Drake, and Kane then met with Bruce Guenther and MCST team members, and Barnes, and Murphy. They discussed a variety of MODIS issues and focused on the bin-fill issue and electronic cross-strapping options to try on PFM. Westmeyer is heading up a tiger team to examine MODIS issues. Barnes and John Barker are members of the tiger team. Esaias would like to know when the tiger team would meet and their scope of activity. Barnes explained that it is not so much a review group as an ad hoc group to provide assistance in assessing MODIS issues. Murphy said that MCST has identified seven issues. Drake and Kane will participate in tomorrow's meeting between MCST and the discipline leaders. The focus will be on cross-talk. Justice commented that we need a sense of priorities and sequence for working issues and Esaias agreed that we need a to-do list and a corresponding schedule.

2.2 Level 1 Suite
Bordi reported summary status on the MODIS L1 suite. MCST delivered L1B (PGE02), version 2.4.1, to SDST about 10 days ago. It can handle 208 rather than 203 or 204 scan lines, making it more resilient to problems with data quality. The current version of L1A and geolocation (PGE01), v.2.1.7, is running well at the GDAAC. Cloud mask (PGE03), v.2.4.8, is in Science Software Integration and Test (SSI&T). Bordi reported no changes in the L1A subsetter (PGE 71) and L1B Subsetter (PGE02A).

Bordi briefly reviewed MODIS L1 issues discussed at the L1 working group meeting. These include an open issue to establish a process to release the software for cloud mask to the public. At yesterday's meeting the group revisited the list of Mission Critical and Mission Essential items and agreed to upgrade two items to the Mission Critical list. Esaias said that the DAAC is asking MODIS to reprioritize these lists and support them in that. Kempler offered to share the Mission essential list with interested MODIS team members.

2.3 GDAAC
Kempler reported that the lag time at the DAAC peaked at 90 hours behind the leading edge and that they are now back to 60 hours behind the leading edge of data. He said the DAAC is running four PGE's and with the new version of PGE01, many of the data gaps are being filled. However, they did have an hour and a half data gap due to Level 0 data from EDOS, recently. Vermote said that he noticed about an average of about an hour of data gaps per day in Level 1. He asked how much data was missing from Level 0 and Kempler replied that in the last 100 hours the DAAC has run 98 hours.

King advised that we need a standardized chart to report the production metrics to the Technical Team each week. Masuoka said that members of the PI Processing (PIP) group decided to agree on a format for such reports. At the PIP meeting yesterday, Robert Wolfe said he would send out a sample suggested

format for consideration by EDOS and GDAAC to get harmonized reporting on the production system. Other suggestions included reporting 1) gigabytes per day; and 2) how many hours of data were processed in the last week; and 3) how many granules, how much was produced, and the percent that was shipped. Masuoka said that a newly formed tiger team would develop a machine-to-machine comparison of DAAC/MODAPS performance. One area being worked by the tiger team is when ingest at the DAAC's is below the baseline.

Justice commented that we need internal agreement within the MODIS team on the metrics to prepare for the upcoming SWAMP meeting. He said that SWAMP study information from the MODIS team is due to Bordi by May 22.

2.4 MODAPS

Vermote asked about subscription failures and Masuoka said that reordering previous days has been a challenge. Masuoka mentioned some bugs in the ordering system. He said that all of the Level 1 PGE's are orderable except cloud mask.

Masuoka attended an ESDIS CCB today. The Tech Team discussed the Aqua system. For example, Aqua plans to provide the predicted ephemeris once every 24 hours and it would be at least 24 hours before L1B could be run. The expected turnaround for the data is 48 hours. Justice commented that since most of the work is long-term time series, the longer term is okay. For selected rapid response events, MODIS would need a data turnaround more quickly.

Masuoka reported he had prepared charts for ESDIS use in their briefing to NASA HQ on Aqua readiness. Murphy had concurred on the charts (subject to approval by Guenther). The charts state that MODIS is prepared to support the Aqua launch with the caveat that the necessary hardware for Aqua be delivered by July, 2000. Without additional hardware MODIS cannot do both Aqua and Terra system processing. It is not clear that these caveats are expressed in the ESDIS package to HQ. Murphy will check with Dolly Perkins on this.

2.5 Ocean Group

Esaias said that Dennis Clark had a very successful cruise and that the Ocean group is interested in running the new version of PGE01 using direct broadcast data for validation. He said that the group may be able to provide some of the oceans part of a global biosphere in time for the MODIS Science Team Meeting. He reported that Clark is changing MOBY out again next Monday.

In response to Murphy's query Esaias said that the Ocean group was not yet producing releasable Level 2's. They may be able to do so by the end of July, including code changes and testing.

2.6 Atmosphere Group

King reported that the Atmosphere group is testing algorithms in their processing system on Windhoek. They have identified Day 110 as the Golden day. It is the first day that they received all 144 granules during the daytime. They are diagnosing the key granules on that golden day and making good

progress. The Atmosphere group is working some physics and algorithmic issues. They are not ready to release Level 2 and the group is working on the visuals and examining the QA parameters. They expect to have some good science results at the Science Team meeting. The first Level 2 Atmosphere products for public release should be at the DAAC about the end of July.

2.7 Land Group

Justice reported that the land team is working on QA. They have received some requests from S. Africa for validation processing and they are starting to look at the instrument performance. The surface reflectance product is the Land product closest to readiness for release. Vermote said that he expects new aerosol code in June.

In response to Murphy's query Vermote said that he would like to release the 8-day surface reflectance composite (a Level 3 product) before the daily Level 2 atmospherically corrected reflectances. Masuoka said he would check the metadata to see that it is right for ordering. When Vermote is ready to release his product, then the DAAC needs 3 weeks to release it through the EOS Data Gateway (EDG) system. Murphy advised using Vermote's product as a pathfinder to see how the process works. (The previous estimates for Level 2 releases assumed no significant time lag between PI releases and the data being available from the DAAC.)

2.8 MAST

Those present reviewed the draft agenda for the upcoming MODIS Science Team Meeting. Justice said he would prefer more emphasis on the implications and lessons learned from MODIS Terra performance on MODIS Aqua.

The MODIS Science Team Meeting is scheduled for June 7-8, 2000. An MCST Calibration Workshop that is open to the Science Team Members is scheduled for June 6, the day before the Science Team Meeting. Atmosphere, Land, and Ocean Discipline Group Meetings are scheduled for June 9, 2000. The theme of this meeting is Science Team Successes and Challenges with the MODIS Data ("Show and Tell," Validation, and Very Early Science). Some information on the MODIS Science Team meeting has been posted on the MODIS Web Site at: http://modis.gsfc.nasa.gov/MODIS/ under the "Meetings" section.

For those MST meeting attendees who plan to stay at the hotel where the meeting will take place, a block of rooms has been reserved at a special rate. The cut-off date has been extended to May 19 for reservations at that rate. [PLEASE NOTE: THE CUT-OFF DATE IS FRIDAY, MAY 19.] After this date, reservations will be accepted on a space- and rate-available basis.

3.0 ACTION ITEMS

3.1 New Action Items

1. Murphy: Contact Dolly Perkins to assure that the MODIS caveats on Aqua readiness are carried forward to NASA HQ.

3.2 Action Items Carried Forward

1. MODIS Science Team: Send updates on MODIS metadata terms/valids to Skip Reber. These are terms that enable users to search MODIS data. This is part of a request to the Terra Instrument teams to update metadata terms.

Status: This action is open.

2. Discipline Leads: Send feedback to Murphy and Guenther on setting flags for dead (non-functional) detectors while they are set to zero. Currently, MCST would like MODIS Science users to provide feedback on which detectors are dead.

Status: This action is open.

3. Discipline Leads: Send MODIS Data Product table updates to Reber with a copy to Murphy. The MODIS Data Products table is on the Web at: http://eosdatainfo.gsfc.nasa.gov/eosdata/terra/modis/modis_dataprod.html

Status: This action is open.

4. Masuoka: Submit an EOS-PM Data Product Update to ESDIS.

Status: This action item remains open.